CLAIMS

What is claimed is:

1. A method for servicing a printhead, the method comprising:

rotating a drum, the drum having an aperture defined in a drum surface;

spitting fluid from the printhead into the aperture.

2. The method of Claim 1, further comprising:

drawing the fluid spit from the printhead through the aperture into a collection structure.

3. The method of Claim 2, wherein said drawing the fluid spit from the printhead into a collection structure comprises:

drawing said fluid through a duct channel having a channel opening at the aperture and into the collection structure.

4. The method of Claim 1, further comprising:

creating a vacuum between the slot and a fluid collection structure to draw the fluid spit from the printhead into the aperture into the fluid collection structure.

5. The method of Claim 1, wherein said drum is rotating at a constant rotational rate while spitting fluid from the printhead.

6. The method of Claim 1, wherein said printhead is mounted in a stationary position.

7. A drum printer, comprising:

a rotatable drum having a drum cylindrical wall including a print medium supporting surface portion;

a printhead disposed adjacent the supporting surface for ejecting fluid droplets; and

a spittoon aperture formed through the cylindrical wall at a drum service portion separated from the print medium supporting surface portion, the aperture having a longitudinal extent at least as long as a longitudinal extent of said printhead.

8. The printer of Claim 7, further comprising a print bar comprising a page wide array of printheads.

9. The printer of Claim 7, wherein said printhead comprises an array of fluid ejecting nozzles.

10. The printer of Claim 9, wherein said array of fluid ejecting nozzles is positioned adjacent to the surface of the drum to provide high print quality of the printed output.

11. The printer of Claim 7, further comprising a vacuum system coupled to the drum to draw fluid drops through the spittoon aperture into the drum and to a collection structure.

12. The printer of Claim 11, wherein the vacuum system includes a hollow drum axle disposed within the drum cylindrical wall and a duct fixed between the drum axle and the drum cylinder, the duct communicating with the spittoon aperture, and wherein the drum axle has one or more openings formed therein in communication with the duct.

13. The printer of Claim 12, wherein the vacuum system further includes a vacuum source coupled to the hollow drum axle through a vacuum conduit.

14. The printer of Claim 13, wherein the collection structure comprises a filter or ink trap coupled to the vacuum conduit.

15. The printer of Claim 11, wherein the drum is supported for rotation on a bearing structure, and said vacuum system includes a vacuum conduit connected to said drum by a conduit bearing support permitting the drum to rotate and the vacuum conduit to remain in a fixed position.

16. The printer of Claim 7, further comprising a mounting structure for mounting the printhead in a fixed position relative to the drum cylindrical wall.

17. A drum printer, comprising:

a rotatable drum having a drum cylindrical wall including a print medium supporting surface portion;

means for rotating the drum about a drum axis;

fluid ejecting means disposed adjacent the drum cylindrical wall for ejecting fluid drops, said fluid ejecting means having a page wide extent; and

a spittoon slot formed through the cylindrical wall at a drum service portion separated from the print medium supporting surface portion, said spittoon slot having an extent at least as long as said page wide extent.

18. The printer of Claim 17, wherein said spittoon slot is parallel to said drum axis.

19. The printer of Claim 17, wherein said fluid ejecting means comprises a page wide array of printheads.

20. The printer of Claim 17, further comprising a vacuum means for drawing fluid drops ejected by the fluid ejecting means through the spittoon slot into the drum and to a collection structure.

21. The printer of Claim 17, further comprising a frame structure for mounting the fluid ejecting means in a fixed position relative to the drum cylindrical wall.

22. A method comprising:

with a print medium on a drum, rotating the drum,, the drum having a through hole defined through a drum surface;

ejecting fluid drops onto the print medium;

as the through hole passes through the print zone, spitting fluid into the through hole.

23. The method of Claim 22, further comprising:

drawing the fluid spit into the through hole to a collection structure.

24. The method of Claim 23, wherein said drawing the fluid spit into the through hole to a collection structure comprises:

drawing said fluid through a duct channel having a channel opening at the through hole and into the collection structure.

25. The method of Claim 22, wherein said ejecting fluid drops onto the print medium comprises:

ejecting fluid drops from a page wide array of printheads, each comprising an array of fluid ejecting nozzles.

26. The method of Claim 22, wherein said drum is rotated at a constant speed during said ejecting fluid drops onto the print medium, and said spitting drops into the through hole.

27. The method of Claim 22, wherein said spitting fluid into said through hole includes:

spitting fluid into the through hole without changing a rotational speed of said drum.

28. A method for operating a drum printer, the method comprising:

rotating a drum at a constant rotational rate, the drum having an aperture formed therein;

for a rotation of the drum during an operating time:

conducting a printing operation by ejecting fluid drops from a printhead onto the print medium as the print medium passes through a print zone;

as the aperture passes through the print zone, conducting a printhead service operation by spitting fluid from the printhead through the aperture.

29. The method of Claim 28, further comprising:

drawing fluid drops spit from the printhead through the aperture into a collection structure.

30. The method of Claim 29, wherein said drawing fluid drops spit from the printhead into the collection structure comprises:

creating a vacuum between the slot and the collection structure to draw the fluid spit from the printhead into the aperture into the collection structure.

31. The method of Claim 28, wherein said conducting a printing operation further comprises ejecting fluid drops from a page wide array of printheads, each comprising an array of fluid ejecting nozzles.

32. The method of Claim 28 wherein said printhead is held in fixed position relative to the drum while the drum is rotating.

33. A drum printer, comprising:

a rotatable drum having a drum cylindrical wall including a print medium supporting surface portion;

a printhead disposed adjacent the supporting surface for ejecting fluid droplets;

a spittoon aperture formed through the cylindrical wall at a drum service portion separated from the print medium supporting surface portion;

a duct in said drum cylindrical wall having a spittoon end opening to said spittoon aperture and a second end communicating with a source of vacuum.

34. The printer of Claim 33, wherein the aperture has a longitudinal extent at least as long as a longitudinal extent of said printhead.

35. A method for servicing a printhead, the method comprising:

rotating a drum about a rotation axis, the drum having a spittoon slot defined in a drum service;

conducting a printhead service operation by spitting fluid from the printhead through the spittoon slot.

36. The method of Claim 35, further comprising:

drawing the fluid spit from the printhead through the spittoon slot into a collection structure.

37. The method of Claim 35, further comprising:

creating a vacuum between the slot and a fluid collection structure to draw the fluid spit from the printhead through the spittoon slot into the fluid collection structure.

38. The method of Claim 35, wherein said drum is rotating at a constant rotational rate while conducting said printhead service operation.

39. A method for servicing a print bar, the method comprising:

with a print medium loaded onto a print medium supporting surface portion of a drum, rotating the drum about a rotation axis, the drum having a spittoon slot defined through a drum surface at a service position spaced from the print medium supporting portion;

ejecting fluid drops from the print bar onto the print medium as the print medium is passed through a print zone for the print bar;

as the spittoon slot passes through the print zone, conducting a printhead service operation by spitting fluid from the print bar through the spittoon slot.

40. The method of Claim 39, further comprising:

drawing the fluid spit from the print bar through the spittoon slot into a collection structure.

41. The method of Claim 39, further comprising:

creating a vacuum between the slot and an ink collection structure to draw the fluid spit from the printhead through the spittoon slot into the fluid collection structure.

42. The method of Claim 39, wherein said print bar is a page wide array of printheads, each comprising an array of fluid ejecting nozzles.

43. The method of Claim 39, wherein said drum is rotated at a constant speed during said ejecting fluid drops from the print bar onto the print medium, and said conducting a printhead service operation.